

## Indications for Surgery

- **Size**
  - Pressure
  - Pain
  - Difficulty Swallowing
  - Difficulty Breathing
- **Nodule with Cancer or Suspicion of Cancer**
  - Cold on thyroid scan
  - Solid vs. Cystic
  - Enlarging
  - History of irradiation
  - Family history of medullary carcinoma or multiple endocrine neoplasm syndrome
  - Abnormal FNA results
- **Hyperthyroidism**

## Types of Cancer

- Papillary
- Follicular
- Medullary
- Anaplastic

## Complications & Risks 3-5%

### General

- Blood clots (DVT/PE)
- Pneumonia
- Heart attack
- Stroke
- Bleeding
- Infection

### Specific

- Recurrent Laryngeal Nerve injury- hoarseness
- Parathyroid injury- hypocalcemia (numbness, tingling, cramps)
  - Need for lifelong calcium supplements
- Local recurrence or metastasis if cancer

## Alternatives

- Observation and close follow-up
- Fine needle aspiration biopsy
- Radiodine ablation
- Excision

